Oral History of Richard “Rich” Hilleman

Interviewed by:
Chris Garcia

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Chris Garcia: It is October 9th [2012] and I'm here with?

Richard Hilleman: Richard Hilleman.

Garcia: Excellent. And so we've done an interview with you already so we're going to be doing some supplementary stuff.

Hilleman: Sure.

Garcia: Let's start with your time in Las Vegas.

Hilleman: Sure.

Garcia: So you lived in Vegas from when you were a kid, right?

Hilleman: Yes, from 1975 to 1983. So I moved there from Minneapolis and went to Las Vegas Valley High School which was about as much cultural change as you could produce in the continental United States between Minneapolis and Las Vegas.

Garcia: Yes, and I think even Puerto Rico would count for that.

Hilleman: Yes, maybe Utah but actually they have a lot more in common than you think.

Garcia: So that's where you first started working with computers?

Hilleman: Actually no, the first computer I ever used was in elementary school in a place called Hopkins, Minnesota. Hopkins was at that time the computer headquarters for Honeywell. And my elementary school got a teletype and acoustic coupler, 110 baud acoustic coupler, and we could dial in to a Honeywell computer that was staged at the University of Minnesota. I could get out of fourth grade math class, Mr. Aldridge's class by going out and writing a computer program and bringing him back the printout and showing it to him.

Garcia: Wow.

Hilleman: I'm okay at math but getting out at math class? I'll do that every day. Now the dirty little secret was it in a closet next to the janitor's room so it wasn't the most ideal place ever, but what I discovered on it was there were also computer games. So I would write a ten-minute program and I would play 40 minutes of *Civil War* or *Star Trek*, or whatever it was that I was playing that day. Usually *Civil War*, actually—[it was] the right byte size.

Garcia: Yes programming like that is a great introduction. My introduction was the Apple II in the room and *The Oregon Trail*.

Hilleman: Yes absolutely, oh great game. Yes I think in my case it was me and one other kid. Mr. Aldridge really did not know what he was doing. He basically knew how to write a print statement. He knew how to do an algorithmic how-to do a piece of arithmetic in it and that was pretty much what he wanted to see, but he didn't know how to do an array, he didn't know how to do a loop, he didn't know how to do a for statement, didn't know really how to make a decision within it so it ended up being essentially much more like his relationship with a computer was a lot more like a player piano than a computational machine. He didn't imagine that it could do anything other than exactly what he put in. But that was the stage we come in, it was 1971, give the guy a break. <*laughs*>

Garcia: <*laughs*> Very true. So now you're in Las Vegas and at this point it's the late '70s, early '80s?

Hilleman: Yes, I mean I graduated from high school in 1979. I went to work at the test site [Nevada Test Site, now known as the Nevada National Security Site] and I went back to school at that point in time. I was taking MIS [management information system] in computer science and I got to know the Century 23 guys, which I guess is what we're going to talk about as a byproduct of buying a computer to be able to do my homework on. Specifically I wanted to have enough local storage so that I could save the programs that I was doing on the mainframe so I was really using it as a smart terminal and an Apple II was actually about as cheap a terminal as you could buy at that point in time in spite of the 40-character limitations. So what it did, was it let me print that stuff and it let me save it locally on disc so if the mainframe got wiped and I went through many of those circumstances where its mass storage went bad while we were in class, which would be a major bummer if I didn't have a local storage. So I bought the Apple II for that reason. I had gone through the process of researching which computer I was going to buy. My I got to back up. I had a scholarship that I didn't know I had, that my mom had. And so when I didn't—I went from high school [then] I went to work and I went to school part time while I worked at the test site and so about a year into that process my mother realized you know this is actually how he's going to go to school. And so she started trying to figure out how to be helpful and that was her angle was well why you don't go buy a machine that makes this possible and I thought about buying a Silent 700 which was the sexy portable handheld terminal device that you could buy at that time. It was about as cool as cool could be. And when I looked up what the price was it was 3,400 bucks and it's like well I can buy an Apple II or Radio Shack for that so heck with it. I'll buy my own computer. So I went down that route. I eventually went down to go buy a Radio Shack computer, walked in and the guys at the particular

Radio Shack I went to were such nincompoops I walked out realizing I won't buy anything from them. And as I walked out there's this guy chain smoking in the front of the place. He's on like his fifth cigarette, there's a big pile of cigarettes on the ground and his name is Mark Beaumont. Mark lives about six doors away from where my parents live. I'd never met him before. I didn't know he lived in that neighborhood. Mark at the time was one of the two manufacturers of Parallel Printer Cards for the Apple II—him and the Grapple guys. And so he said "You don't want to buy that." He says "Come over to my house and I'll show you why." He showed me an Apple II, took off the case, showed me all the reasons—showed me 10,000 programs. Showed me how much faster the disc drives were. He did the big sales job for Apple. And then it's like "Well, where do I get one of these?" He goes "I don't know. I bought mine in Southern California." So I go look it up and there's really two Apple dealers in town, one on my side of the lake and then there's Century 23 on the other side. So, Century 23 is over by the newest shopping mall so the seduction was I could get to go to Century 23 if I took my wife to the other shopping mall.

Garcia: Nice. Good trade off.

Hilleman: Good trade off. Century 23, by the way, strategically had right next door the best arcade in Las Vegas at the time. So I think that was a part its secret to its success. So the very first time I went there I met a guy named David Gardner, and David worked for Nick Reese. David was a charismatic [and] I think at the time [he was] maybe 16 years old. He might have been 15. David was kind of famous for being a great salesman and for owning two cars before he had a driver's license. That's achievement, baby. David and I became pretty good friends. We were interested in pretty state of the art stuff. I was writing business applications for FORTRAN, which I was pretty sure had nothing to do with the future. And he and I were interested in object-oriented programming (OOP) and Unix in 1980, so slightly ahead of the curve. And so he and I would spend a lot of time together. I bought my machine there. He helped me get software. He helped me learn what software I should have. Over the time I worked with those guys I met a number of people who ended up rattling around the computer business since then: Mike Legg, and Milo, and Lou Castle, and David Gardner all who have had significant positions and worked on great products in the business. It just proves sometimes there's little tiny places where something magic happens. I think in this case all of us would give Nick Reese a lot of credit. Nick had a real vision for what games could be. Nick also worked with me at the test site. So the irony of the video game business in its early days is much more reliant on its relationship with the nuclear weapons industry than maybe it would like to think. <*laughs*> Not just me either. A lot of Lawrence Livermore [Laboratory] guys in the Sacramento and early Silicon Valley days.

Garcia: And by far my favorite Atari 400-800 game was *Scram* the nuclear reactor simulator.

Hilleman: <*laughs*> It was pretty right? When the pumps fail [ph?]. It didn't have tsunami mode, though. Who knew that?

Garcia: Also the best cover art of any of them.

Hilleman: It did have good cover art.

Garcia: Yes. A couple more things about Century 23 real quick, describe the place.

Hilleman: I mean it was pretty basic strip mall shop. Boy, I'm going to remember a lot more than I thought I would. Kind of on the back left wall was always the newest coolest thing. The last kind of image I remember of the store at that time was that it had a *fortune*, which was a Unix-based 68,000 machine—which was pure unadulterated sex—10,000-dollar-a-unit set. It eventually was replaced with Apple LISA which gathered a similar amount of dust. Neither of them really found a customer. On the back right wall would be their Apple III. Nobody remembers the Apple III, but they sold a lot of those. [There also had] VisiCalc machines—they were very useful in that particular context. On both of the side walls were the classic hooks with the Ziploc bag software that was purvey of the time. There was a glass cabinet on the right that would have the TI [Texas Instruments] 99 computer in the glass that nobody was ever going to buy, and then huge racks of five and a quarter-inch single density, single sided floppy discs behind that cost 100 dollars a box for 10 of them for 1.7 megabytes for 100 dollars of offline storage. And then they would have printers. They would always have good demos there. They have a lot of Apple IIs on the other wall usually demoing software on those showing printers usually of Epson MX80s, MX70s were the hot set up, Grappler programs, Novation modems, US—let's see the UCSD p-System [University of California, San Diego] running on a beater which was by the way closed the deal for me my ability to run Pascal [programming language] on that computer.

Garcia: Really?

Hilleman: So it was a fun place to go down, you could learn things. I didn't do as much of that, but when I tended to come in I tended to know what I was doing so I know it's kind of how I do things in life. I don't spend a lot of time at users groups talking about what I'm going to do. A lot of people do that. I don't really get the point. <*laughs*>

Garcia: I could understand that. It's fascinating to get some of the folks who were there?

Hilleman: Sure, so Milo was—they had really kind of four sales people that I worked with. We'll go from youngest to oldest, so Mike Legg is the last one that I know who worked there. Mike currently runs a shop called Petroglyph in Las Vegas. He's the same enthusiastic kid he has always been. Always fun to watch. He worked on *Pirates* [*Pirates: The Legend of Black Kat*] at Westwood. That was probably the last big project he did there. He's been a great guy, enthusiastic guy, pretty good engineer, pretty good artist, pretty much ended up being a producer now and a project head. Does well with other people's properties in particular, continues to be a vibrant enthusiastic part of the business. The next guy probably chronologically is actually Lou. Lou Castle is currently, I think, the Director—Creative Director at Shuffle Master, Inc, proving that some of us actually did grow up from Las Vegas. Lou was born there. Lou is a

native, and his father I think was a native too. He's a second generation native which in Vegas is five handfuls, maybe, of people. Not very many. He again is a very good artist, a much better programmer than people had ever given him credit for, and a surprisingly good fine artist when he wants to be. Also, [Lou is] not given enough credit for how smart he is with money. Lou has been a pretty—every company that Lou has run when he has run the books has been run well, so it would be interesting to see what he does in the gaming business where the books are a different thing. Lou was another very effective salesman there. He pretty much took David Gardner's place. Milo was—I think he was a guy that went to school with David and was one of the kids from the neighborhood, [and] again, a very good programmer. He ended up being the tech guy or the IT [Information Technology] guy for, I think, about three different gaming shops in Las Vegas over the years. I seem to run into him every time I go to his shop there, it's kind of funny. He continues to be the same kind of guy he was, and it's also a time capsule of 1985 for whatever you would like to describe it. He's still the only other guy I can talk about hardware with there. Then the last one is probably David Gardner. He is the senior guy. I think David was the guy that Nick hired first. They went to church together. David got his kind of most famous start in the business for writing a piece of code that produced the rainbow Atari logo on an Atari 800 that got shown on *The Today Show*. That was his big kind of claim to fame as a programmer. David, again, a very effective salesman, was the ninth employee of Electronic Arts (EA), something like that. He was the guy who I followed to EA and then has gone on to do many interesting things including running EA Europe and being CEO of Atari, he currently runs a venture fund that two of his investments were called Playfish and Unity 3D. He's done alright.

Garcia: Good gets.

Hilleman: He says it always works out well when EA invests.

Garcia: Smart.

Hilleman: We always end up later than him, though.

Garcia: Okay excellent. Those are excellent starts for a nice little project.

Hilleman: David is a great guy if you need to talk to him let me know.

Garcia: Absolutely. Let's go actually to the Nevada Test Site [Nevada National Security Site].

Hilleman: Sure.

Garcia: You were a pretty young guy when you were there.

Hilleman: Yes, I went to work there when I was 18. Out of school what I did was I applied for a job there. I ended up getting this job called a Classified Courier. You start out with a red badge which means you can't go anywhere or do anything interesting unless you go with a green badge. I spent seven months while I got a security clearance and then after that I took over that job, which is a glorified mailman for most of the first three years I worked there that was kind of the nature of my job. The last year I was a computer operator.

Garcia: What sort of systems were you working with when you were there?

Hilleman: Computer operator?

Garcia: Uh-hum.

Hilleman: Let's see here, so we had VAX 11-780, which was that, and a VT100 was pure unadulterated sex in 1980, and to have it all to yourself, which I would—working the swing shift I would generally have it to myself and you could do what you wanted to do and learn a lot. I didn't get to play with it nearly as much as I wanted to. We had a remote terminal and by remote terminal I mean a full speed speed-of-light connection to a CDC [Control Data Corporation] 6400 and a Cyber 72 that were in the computer room at DOE [Department of Energy] headquarters on Wyandotte. At the time it was still on the Datamation Top 10 as fastest computers in the world. It was the third time in my life I had worked on a CDC 6400. <*laughs*> I never seem to get away from them. So it was when I went to junior high in Minnesota the timeshare system that we used was a CDC 6400 at the University of Minnesota that Seymour Cray donated from CDC. Then when I went to UNLV [University of Nevada, Las Vegas] in 1981, I guess the computer that we used was a CDC 6400, which had been given to them by NTS [Nevada Test Site] guys about ten years before. And then when I got to the test site, I'm working on the 6400 again, so anybody who says technology advances didn't seem to know about the 6400.

Garcia: Yes that one out of the University of Minnesota was the start of NECC [Northern Essex Community College] and that was a pretty—I think that one still is in a science museum or something.

Hilleman: Yes the software that is run on that computer is pretty amazing if you go back and look at it. I have no knowledge, but I can imagine the defense applications are run on them because I know the era and I know its serial numbers [are] extremely low. It's two or three. It's one of the first five so it means that somebody at DOE or the Atomic Energy Commission at that time had been writing that program and been waiting six years to get it, [that] kind of thing. So [it was] that kind of era. And it's a 60-bit word machine. The console was actually pretty cool. Those who ever used a CDC console were a big round tube. You've got one here I've seen it before and you've played baseball on it or a really cool submarine

game or there are half a dozen other things. It would actually run on the PP, on the Peripheral Processor that actually ran the consoles, so literally it was running here not there. That's why you could run it while you ran a job and not get in trouble. But it was a pretty as a piece of hardware it was a pretty cool thing to have. But [it had] a lot of punch[ed] cards. I had a real job with punch[ed] cards. I may be the last one in the business.

Garcia: Wow. Now what I know you probably can't give me specifics, but what sort of projects were you working on there?

Hilleman: Oh incredibly boring things and stuff I probably didn't understand. A typical night we ran jobs, batch jobs and those were decks or they were tapes. You'd mount them and run if they needed to be compiled you'd compile them and then you'd run it against a data set that got loaded. And that would range from scientific engineering that I didn't really have enough time to spend any time on, to a lot of really boring stuff like payroll. There was a database that took Dosimeter readings for people, put it in a database and did some early kind of analysis based on that stuff. There was procurement, and just everything under the sun. In a lot of cases there was as much ledger work to do as computer work where we'd have to make sure that all of payroll ties together, all the reports tied together—that they all come out to zero or whatever the number is supposed to be. So that's a lot of what the process was. There were things, [for example] I fixed bugs sometimes. Not very often. Generally engineers wanted to fix their own. There were a couple of guys that I knew, especially if they made stupid mistakes. When you forget to put remark in front of what's clearly a comment I'll put remark on there for you so that the job will run tonight so you don't have to run it tomorrow, stuff like that.

Garcia: What did you really take away from that? If you had to sum it all up into what that did for you in your future career?

Hilleman: Well, good question. There were things I liked about it. There was a certain “Wild West” to it. A big chunk of the game business has been the Wild West, and Las Vegas and NTS are really both studies in the same thing. The nuclear—the high energy nuclear business is a frontier and people who play at that frontier they play with fire, literally or worse, plasma, some other things. And they can do great damage to themselves and property and people, and they worry about that a lot. But they also love that power. It's seductive. Edward Teller is a hero to many because he looked at the powers he could control. If you look at the rest of Las Vegas it's kind of the same thing especially the '60s era was about this about the mob thing. Now I don't want to overplay this but both of those are studies in influence and as I get older those are lessons I appreciate more because what I recognize is how you really get things done in life. It's not what you personally do, although you may be capable of a lot but it's how you influence others to do the things that you think are important or to think about it the same way.

Garcia: Were there crossovers between the NTS and the gaming industry? I know you mentioned two.

Hilleman: Yes. I can think of at least two. Mark worked at the test site from what I could understand. I can't imagine a worse idea than giving them access to secret information, but whatever. I'm sure he was compartmentalized appropriately. Nick Reese worked for, I think, Holmes. Narver, which was one of the contractors I worked for [at] Reynolds Electrical and Engineering, was an engineering contractor and I believe he was a programmer for them. But we knew a guy like Rick Holmes he rattled in and out of the game business. He was one of the two primary systems programmers that NTS at that time, probably the two guys who were my heroes who spent all their night listening to Pink Floyd and trying to figure out how to make the disc drives dance around the computer room.

Garcia: Seems like those are always the ones _____.

Hilleman: Oh yes, they were the best. They could aspire to figure out how not go to work so they could go to every single one of the Pink Floyd *The Wall* shows in Los Angeles. They went to all six.

Garcia: Wow.

Hilleman: I can't imagine.

Garcia: You need a scheduling program for that.

Hilleman: Well no, it was more importantly the only two people who could probably run the shop left for a week and I'm pretty sure that wasn't on anybody's agenda. Apparently it worked. <*laughs*>

Garcia: Let's move on actually to the role of the Producer and let's start at the beginning of your tenure as a producer.

Hilleman: Actually I went to EA before I was a producer.

Garcia: Really?

Hilleman: Yes. When I first went to work at EA, I, as I say, I soldered discs and copied cables. I originally came there to do something called “product support” and it really was a collection of things. I mean all of our disc masters, so if EA shipped a product it went through my fingers. If I fucked it up, I fucked it up in enormous quantities. I put copy protection on that stuff, which started my unfortunate and continuing romance, or at least fighting, with hackers to this day. I was responsible for the IT of the company and in fact that went from buying Apple IIs and hooking them up, to making serial cables to make sure daisy wheel printers worked, to stringing the first hundred-node Ethernet on the peninsula that I'm aware of

including before Sun [Microsystems] had 100 nodes. So we did lots of things in that era. I could do hardware, which was unusual. I was a good enough programmer to do low level, the kind of low level kind of stuff you need to occasionally have for copy protection. I mostly wrote utilities, that was my job at that time. I turned out to be good at product. I had no idea. I came to work at Electronic Arts because they had six guys who worked at the Palo Alto Research Center [PARC], including Tim Mott. I had read all of his papers and he was smart as hell. He'd been Larry Tesler's partner at Xerox PARC and those were people I was sure I could learn from, rather than learning how to write business applications in FORTRAN. That was the theory. I was there about three years and it was pretty clear to everybody except me. I was probably the last guy to the party that [realized] I knew something about that video game stuff, and in spite of the fact that I actually never really cared that much about it before. I've always felt a little guilty about that, that I'm good at something I never strived to be good at. It feels a little guilty at some point. I've strived since then, but [not] at that point in time. Literally, I think the line cross for Trip [Hawkins] was a friend of mine named Rick [who] was making a product called Racing Destruction Set. He had needed somebody to edit the tracks for the game so I had done testing for other people and he'd come in and said "Would you help me with this? I can't get this editor to work. Would you help me test it?" The way you test an editor is you make tracks, so I made about 300 tracks. We shipped about 100 of them and a couple hundred of them died because the editor wouldn't save or it crashed or whatever the things were. So when we shipped that product, Rick—the nature of being a developer at that time, an outside developer, is you lived pretty hand-to-mouth. It was going to be 90 or 120 days before his royalty check came in so he was looking for his next gig trying to figure out how to get my next contract, "What am I going to do Rick, I got no idea what I should do?" I said "Well I got an idea. Why don't you do another racing game?" "Well what should I do?" [Rick asked.] I said "Well I got an idea." He said "Would you write it up for me?" Rick was not the best writer. So I went home and with Microsoft Windows 1.0, I wrote a 30-page design document that became *Ferrari Formula One*. I did that in a weekend and most people thought was pretty remarkable. I didn't really think about it. It sat at the back of my head for six months before, then after playing Sid Meier’s *F-15* [*Strike Eagle*], I said "What if I took that idea and made a racing game out of it?" So, it was to me, it was kind of an okay [game]. I want[ed] to build a simulation-based driving game with a menu system like *F15*. That was kind of all it was to me. I had a couple of other innovations about how we were going to do AI [artificial intelligence] using perfected line idea and I had some ideas about how to rate drivers so they would work on a model. We had some ideas about how do you steer with a mouse and how do you make it so that you can see into the corner where you're going as opposed to a straight out in front where you don't care about. We did a few of those things that were new, but it took us about two and a half years, and we shipped that product. What that process did, I guess, was convince Trip in being that I should do other things, so I ended up taking over our simulation line right at about the same time.

Garcia: That included?

Hilleman: Chuck Yeager, it included our products we were making with Lucasfilm at the time, *Strike Fleet* and [*PHM*] *Pegasus*, which were done by Larry Holland and Noah Falstein. It included *Arcticfox*, which was being done by Dynamix, Jeff Tunnell and Damon Slye and Richard Hicks [and Kevin Ryan]. I got them all. Let's see here. I had a couple of others. Bob Dinnerman's *Interceptor*, we did a product with

Digital Illusions called *F-16 Combat Pilot*, which was the first 16 player multi-player online game I know of. So we did a bunch of products like that. We did *688* [*Attack Sub*], [developed by] John Ratcliff. We actually had a pretty good run. We made a bunch of good products in that era.

Garcia: And then in that era what was the role of the producer?

Hilleman: Yes. Well I was kind of the second generation so I always think of the first generation as being Pat Marriot and Dave Evans and Joe Ybarra, Susan Lee-Murrow, maybe Don Daglow. Those guys were kind of the first guys who did that job at EA. They saw it as a kind of half creative, half business job. Their job was to sign acts essentially, produce those acts to produce product, and then that product was supposed to be financially successful in the marketplace. But they were supposed to bring the things that the person didn't have and usually that was a fair amount. We were usually working with individuals, programmers for the most part—a disproportionate number who lived at houses, lived in bedrooms at their parents' houses still. There were guys like Will Harvey who were in that kind of category, and so our role was to make sure that they had the things that were necessary to be successful. If that meant adding art, if that meant adding sound. If that meant helping them design the game or figure out how to finish it. In almost every case it had to do with fixing and finding lots of bugs, so that was kind of the process at that time and producers managed that relationship, the signing relationship, the development relationship, the finishing relationship, and then the decision about whether to continue with that person. The producers for the most part were measured by the financial output that the organizations did. People like Dave Evans with Bill Budge were very important; Pat Marriott [along] with several folks, including Bill Budge; Joe Ybarra with Brian Fargo, and the Interplay guys making great *Bard’s Tale* series, or with the *Starflight* guys making that great product line, too. I think *Wasteland* is actually his, Joe's, best product that he made with Brian. I really love that product. And then he started on *Madden*. For Don, it was probably Earl *Weaver Baseball*. [That] was really his great contribution. He also worked on *Madden*. All those guys really started that job and so I spent really the first three years at EA watching them do that job.

And there were—there was shit I would never do that they did. There were things that I knew better, I thought and then there were things that they did that were worth learning from. Joe Ybarra had an interesting way of organizing the process. What I also brought to it was I had grown up playing music and so I had kind of musical references for things. One of the people I admired at the time was a guy named, I still do by the way [play music], was a guy named Todd Rundgren. Todd was kind of famous for being as vertically integrated as a musician could be—did everything, but own his own label. He engineered his own records, he produced his own records. He played almost—if he did [not] play everything on it, it was almost everything. He sang all the vocals on it, wrote all the material for the most part, managed his image, was really technically interesting, [and] knew a lot about synthesizers before the fact. He really got the most out of being vertically integrated. I think what I thought was interesting about that at the time was that technology was difficult and if you didn't kind of understand any of it, none of your vision would come true. I also thought maybe you would get closer to a singular vision. I kind of melded those two together. I melded what I saw out of Joe or Dave Evans, who I thought was pretty good at handling talent. Stewart

Bonn, who I had forgotten in this list, was terrific with *Music Construction Set*. Each of them did their thing that was right for them. There were things I wouldn't do. Stewart was aggressive with people. I find screaming and yelling at people whose intellectual property that you want to come out of their head is not a good way to make that happen. There are times when it's necessary but I find it's infrequent as I get older—less and less frequent. There were people like Joe who do too much before them, I think. I think Joe was very talented and very eager to show that he was talented and smart, and he would often do I think _____ is great and a lot of is because of Joe and a lot of it is because Joe did a lot of the work and the shame is he didn't get as much credit as Cranford and Fargo do as a result. There are guys like Daglow, who didn't understand what his artists wanted. I think he knew what a great product looked like, but he didn't understand what his artist wanted from a producer, what he did and didn't want, and he had to learn how to listen. Each of those people taught me. I had kind of object lessons from each of them of “I'll never do that kind of thing.” Easy for me to remember, but my perspective I think was always to try and figure out how do I stand on a line between where that person is and what I call their heart's desire. And so if I worked with Ned Lerner on Yeager I kind of took it over halfway through. I knew his desire was to be successful. That was very important to him. It was important to him to tell his parents that. It was important to tell his girlfriend that. It was important for him to be successful and being successful meant a lot of things. It meant sales, but it also meant the right kind of PR notoriety, it meant the right kinds of things. So we made sure that when things went well in the project that those things happened for Ned and that he connected those two things as much as possible. And I think you have to do that kind of for everybody even today. Even the kids I hire out of school—I'm really trying to figure out how is where I am now and what I'm going to ask them to do for the next year on as straight a line, to where they imagine their future is as possible. Now sometimes those kids I try and change their notion of where that future is, too, because often it's not the right thing. I can talk a little more about that if you like?

Garcia: Absolutely.

Hilleman: I have had a lot of interesting experiences with kids. We've been doing this now for five years so between interns promising 25 different folks through this role which is a lot in a business that throws off less than 300 a year. So all the university programs put together about 300 a year for us—that's really a high percentage of them. A couple things have happened. I have had a fair number of second generation kids, people who I've worked with their parents or I knew their parents from the industry. And there's a reason why there are a lot of racing drivers named Andretti. It's because Marco Andretti who is the third generation whose uncle raced who's great uncle raced, whose grandfather raced, whose father raced, whose uncle raced, whose second cousin raced, when you actually have that many other people you actually know what the real job is and you know that the real job is 10 percent about driving around the track fast. And it's about 90 percent about having a car that's fast enough to win. And how that happens is lots of other things that have nothing to do with racing. It's a lot of shaking hands, it's a lot of smiling; it's a lot of figuring out who are the right sponsors. It's a lot about figuring out who the most talented engineers are that are going to have the innovative decision that are going to be the distinction next year. It's about the right organization. It's about a lot of things. It's about money. If you are me who has never been in the racing business, we think it's really about getting in the cockpit and driving fast, like 90 percent about that. If I do that, everything else will take care of itself. That ain't true. If you come in with

that idea, you will get that smile slapped right off your face because reality will strike. You will be fast and you will be in a slow car and it will not matter. You will still be 23rd and nobody will notice and you will just be another one of those guys who is losing. And if you hate losing and most people who are at that stage of their lives who have gotten to that level are there not because they like to win. It's because they hate to lose. You really will hate yourself. So a big chunk of this often is when folks come into our business who grew up playing video games and think about it the same way that maybe somebody thinks about a sport for instance, they don't live in the real world. They live in a world that's in their head. And that means they want to do things that are connected to that fantasy whether or not it is important in the business or not, they have to discover so often I go through that process of teaching them how to worry about the right 90 percent of the job and sometimes they get it. Sometimes they don't. I don't mean that in a negative way. But I mean it takes the same amount of effort, maybe more to make a bad level and a bad game than to make a good one and a good one. I mean it isn't harder work. It's harder to get there. It requires more attention, requires you to do more things, to be more aware of your situation and what you can and can't do at that point in time but it isn't any harder. The actual task isn't any harder. What's harder is to get there. So you know a great running race car—okay, it's a little scary to drive 200 miles an hour, but once you got used to that part a great handling racecar is actually not really a big deal. That's kind of the point of it. If it takes a lot of attention you can't drive it fast, so the point here is I think it's very much the same in our case. Generally when you're working on a good product it's easy. It's clear. What you're doing is very clear. People know how to do things. Every day they surprise you in a good way. Somebody coming in with something you didn't think of that makes it better. And none of that seems like hard work. You're showing up and you're doing the hours, but it doesn't feel hard and so for the most part it's teaching people that if you do that other stuff right this part gets to be exactly how you really want it to be but if you don't do it, it never can be. And so that's been the hardest thing. It's really hard to find kids who have this great really clear vision of what they want to do and I love that about it, but man it's about the past in many cases and so it's about getting them lined up with the future. Does that make sense?

Garcia: Oh Yes, absolutely. Now sort of walk us through a timeline.

Hilleman: Sure on what?

Garcia: Let's say *NHL*.

Hilleman: Sure. I think we can tell that the Madden and *NHL* stories are really one story, one and a half stories. So there's the *John Madden Football* before the John Madden Sega Genesis that most of you know. So the guy named Robin Antonick, and Trip, and Joe Ybarra, and John Madden, and Joe Kapp, and several other people—I'm trying to remember—Rich Adams, Don Daglow, Mike Kawahara, Michael Brooks, Randy Breen—a whole bunch of people worked on an Apple II game that became a PC game that became a Commodore 64 game and those were based around really a design theory that I think Trip and Robin shared. They both loved Strat-O-Matic games and particularly Strat-O-Matic football. They wanted an action football game that had the underpinnings of that kind of simulation game that still was a

fun action game. And both of their starting point I think was that hard simulation model. I'm a big fan of simulations. I told you the very first design I ever did was simulations and I spent three years making it before I ever worked on sports products. But one of the things I learned about simulations are that it's important to make things that people think are right, much more important than it is to make things that are right. So when we would make an *F16* game, did you ever play *Falcon*?

Garcia: Oh Yes.

Hilleman: So, I don't know—a 200-page manual? It still was a fair amount of a lie. When we made *F16 Combat Pilot* in its original incarnation it was picture accurate meaning you could take the real *F16* pilot's manual and you could fly that aircraft and it would work the right way. And I don't know how he ever got that one but it was in England and I never had position. So it wasn't fun. The nature of that means to fire a missile is about 17 steps. Most people could not figure it out. And Paul Grace and I we would read that and we would still omit a step and fire a missile because it was un-caged out in space and missed or something, and so literally while we're working on that *Top Gun* comes out about the same time. And I think Paul and I both came out of that and said the same thing to each other. He goes "People don't want that. They want that. If you give them that they think that's wrong. They think that's right. Don't argue with your customer." You know. If he thinks Tom Cruise is right give him Tom Cruise and give him a little of the dirt, give him a little more because if you teach him something else then he thinks that's congruent with what he already knows but it's a little more, then he thinks you're more right than Tom is. He gives you credit for being more of a simulation. You don't need to do this, you need to do that. So what we learned is you build a simulation to what people already have in their heads, not to what is true. I can't even remember who the line comes from but "If the legend and the truth don't match, you print the legend."

Garcia: John Ford.

Hilleman: There you go. I think in this case that's the truth. So in our case we very quickly after about year one got away from doing straight up simulation. If you look I think at the first Madden that Antonick was making it was more important for it to be a simulation that was correct than for it to be fun. And so we worked on that product for a number of years. It was a challenge, had a lot of bugs. It was definitely 15 pounds squeezed into a 10-pound bag. That didn't help. It was essentially the first project that Robin had ever written. That definitely didn't help either. And it had a lot of cooks in the kitchen. A lot of people who thought they knew what that product should be. By the time I showed up, it had killed the three people before me in the producer job, so you can tell my number-one goal was not to be killed by this thing. So we got it out the door, and that was pretty much our role. At the same time the Amiga was coming online and the Genesis was on the horizon, and so we needed a 68000 football. We had licensed, from Bethesda Software, something called *Touchdown Football*, which kind of filled the hole on the Amiga. Park Place at the time had just done *Monday Night Football*, which you probably don't remember.

Garcia: I do actually.

Hilleman: Okay. And *Monday Night Football* was heavily borrowed from *TV Sports Football*, because they had guys in common, of course. So if you looked at *Madden* on the Apple II it was little tiny guys on a black-and-white screen generally with lots of numbers. And if you looked at *TV Sports Football* it was big guys running into each other with like five plays you could call. And it just seemed to me there was something in between. <*laughs*> It was so wide apart. This had some good gameplay in it, not great. It really wasn't built like an arcade game. This had all this interesting technology and interesting ideas about simulation, most of which were more complicated than you cared about, and so my point was "How do I build a game that reflects that same idea that we were building in simulations?" which was "How do I build something you think is right and a little more?" And so when we worked with Park Place that was kind of the direction. I said "I think playbooks are important." People believe that the bigger your playbook is, the smarter your game is. It's bullshit, but they believe it. So we designed essentially a playbook that fit well, and the other thing we did was we designed around the buttons. So the Genesis had three buttons. “C” turned out to be the one you pressed the easiest. We learned that lesson from *Sonic*. So we kind of sorted the buttons from the one you use the most to the least, and then we made offense and defense be complements of each other. So if you pressed the jump button on offense and it was the “B” button—I think it was the “B” button—it was the same thing on defense, and that the tackle button and the “oomph” button or the “straight-arm” button were the same. Those kinds of things matched-up. That way you kind of knew. "I want this kind of thing to happen, press that button. I don't know exactly what's going to happen, but I want that kind of thing to— do something like that." It felt more like telling the guy what to do than directing him and driving his arms, that kind of thing. So that was the notion of the difference between those two games. We were extremely fortunate. I'll say this 100 times over. There's a guy named Jim Simmons, who Park Place put on the project. Now, I had originally thought I had hired the team that had done *Monday Night Football*. That is not what I got. So Jim shows up for our first TDR, the process where he examined how he's going to do the product, and Scott Cronce, who's my TD at the time, and I are like "Wait a minute. We've been baited and switched." So that's step number one. We already know this guy is not who we think we paid for. So he shows up, and the very first thing he says—Scott goes through his TDR—"So tell me. You say here you're going to do a 3-D field." So we'd just been through Robin's version of a 3-D field, and that was pretty painful. "So how do you plan to do this?" because we had done the projection math. It was pretty painful. And he says "Well, I plan to do it something like this." And he turns the machine on, and it's running. So it's very hard to argue with somebody that he can't do something when it's already running. So it's like "Okay, cool. So how much of that processing power is it using?" He presses a button on the controller, and it shows. It's like 1.6 percent. It's like "You're not doing any math here." "Nope." He had a pretty cool, interesting trick with using slides and shifts. Kind of color. He'd figured out that if I fix the perspective, it's a single divide per line, and I can do that with a shift. And on a 68000 that's a 32-bit shift. You can get a lot done. So [he is] pretty smart guy.

Garcia: Yes.

Hilleman: So Jim turned out to be their music guy, and Jim had worked on *Monday Night Football*, but he'd done the music. Okay. So he tells us this is what it's going to do. He's got a good memory model. We let him go. This guy was awesome. Pretty much he built the game. I mean, we told him what we thought a football game played like. I gave him buttons. We gave him a playbook. I explained "This defense stops that offense." When we can play the game it's like "That linebacker's not covering that guy. He needs to watch that guy. That's his assignment." You know, we had those kinds of conversations, but Jim really built a game that played great. I mean, the very first time you put it in your hands it was great. And what did we do? We maybe dramatically reduced what he thought he needed to do, and we didn't go as far as *Monday Night Football* did on their presentation. We didn't go as far as *Madden* did on the Apple II in its simulation or *Weaver Baseball* or Strat-O-Matic for that matter. We just did a little bit, and the little bit was enough to ring true to your context so that Barry Sanders played like Barry Sanders.

Garcia: Wow. Not a lot of other players have played like Barry Sanders.

Hilleman: Yes. Well, we learned—and, again, I didn't make this up. This is not something new. I mean, so Scott Orr, who was my collaborator on that, is a magician. Pretty good one too. He doesn't practice enough, but when he wants to be he can be a really good sleight of—and he gets the principles, which is, if you think it's magic, guess what? It is. And so to a great extent he's a big believer in the power of suggestion, and one of the lessons that I learned from another great influence on *Madden* for me is *One on One*, which was a no-compromise basketball game that was very easy to pick up and play. It was just no compromise there. You got everything you wanted. Now, underline that and—sorry, Eric. I'll tell you in advance "Sorry." I'm going to give your secret away. *One on One* was an Apple II product, which means a 48K product, and that was always the smallest footprint that we had in the 8-bit era, so squeezing on that machine was tough. On top of that because of 7-bit graphics you tended to have to keep lots of copies of graphics around for each one of those different shift points. He had figured out how to do shift-on-the-fly graphics pretty much by doing every other line. It's really what he was doing, but it was a good trick anyway. And so he didn't have to have all of that stuff, but he had pretty extensive AI, and it played really good basketball. Eric, like me, is not a typical computer geek. He's a jock, dates girls and does all kinds of things that are unusual. So when we got to the end of that product, eventually he pulled me aside and he says "I got to tell you something." And Eric was the kind of guy—you never knew what he was going to tell you. So it's something like that, you're already worried. I'm already worried "What now? Are you going to jail? What do I got to do, come bail you out? What's going on here?" So he says "No, man. I only got one set of shot tables in there." So if you remember, the original story of *One on One* is Dr. J plays like Dr. J, Larry Bird plays like Larry Bird. We got this shot table where when he shoots from one of those positions it's his percentage, and only that player has that percentage. No. There was one shot table, okay? If you watch people play, they would miss three-pointers and attribute that to "Dr. J, he can't make anything." They'd miss slam dunks with Larry Bird. "Larry Bird can't make"— they're not tracking things. What they do is they have a context, they have a story they already had told themselves, and when something's consistent with that it reinforces it and they notice it. When something doesn't reinforce that, they don't notice it. They don't pay as much attention to it. The power of suggestion works on that principle. A big chunk of why context works is because people believe it, and they fill-in tremendous amounts of stuff they have in your head that's perfect for them that you could never know. So the other

version of that—and my wife and I have this joke, so her version of winning the practical joke is to get the last joke in, and mine is to remind her that she has to sleep sometime.

Garcia: <*laughs*>

Hilleman: Now, what would I do? I have no idea. But she fills it in. She imagines the worst thing I could do. If I actually told her, that would be way worse. What I should do is let her fill it in, because it's going to become the one thing that would scare her the most. So don't do what you don't have to do. Sometimes the player will do it for you.

Garcia: That makes complete and total sense. Now *NHL*.

Hilleman: Yes. So *NHL* was a byproduct of *Madden*. We finished *Madden*. When we finished *Madden* we had our list, and one of the things you do in the process of finishing a game, at least I did, would be you'd have your punch list, stuff you're trying to finish, and it includes bugs but it also includes features. And usually what happens about betas, all the features go to the bottom of the line. You draw a line, and they all go below it. And you go "If we find more time, we'll do one of those," which means you're never going to do it. But I keep the list because what it does is anybody who puts something on the list, I don't have to have that discussion anymore. It's there, it's below the line. "I hear you. It's below the line. Got it? You think it should be above? Okay, then we're done talking about this." So that's why it's there. What was different about Madden is when we finished it we couldn't—when we had shipped sports games on the PC and on the 8-bit computers, we would ship update discs that had player stats on it. Can't do that on a Genesis.

Garcia: Why not?

Hilleman: So we already knew that we probably wanted to release a new game the following year, so we looked at the rest of our list, and I think we knocked it out in like a month. So we literally killed most of the rest of the list. We had some other things we were thinking about, but we did the stuff that we had intended to finish. Jim just went and finished it, and then we were done. And we looked at the calendar, and we said "What are we going to do for the next seven months?" Eight months or whatever it was. So Park Place came back and wanted to do a tennis game, so because I grew up Las Vegas I used to race go-karts against a guy named Andre Agassi. Said "I'll make a call." So before that I went into this thing we called Review, which is where you would take new products in. So I come in with the team that had just built *Madden*, our biggest hit to that point in time, and they wanted to do a tennis game. Larry Probst, who is still our chairman of the board, says "I ain't doing a tennis game. I hate tennis games. I did three tennis games at Activision. I got my lunch handed to me by all three of them. Tennis games are for old men. We ain't doing a tennis game." It is the only time he ever told me I couldn't ever do anything ever. And he says "Go build a fucking hockey game. It's what you want to do anyway." So at the time he knows—

because Bing and I play on the same ice hockey team together, he knows that we play ice hockey, always have. That is the basis for my relationship with Larry. Larry's a jock. He thinks of me like a jock. He treats me like a jock. That's a compliment, I think, for a guy who's a Delaware quarterback. So he was trying to tell me "Go build the game that you want to build about the sport you love anyway." That was his point of view. So that's kind of what we did. We went to Jim and said "Okay, he says he wants to build a hockey game. Let's build a hockey game." We went and got the NHL license, which at that point was easy to do because *Madden* was such a success. They wanted on. And we built a game and showed it at the 1991 Stanley Cup Finals. So Neil Smith, who at the time was the general manager of the New York Rangers, eventually was the guy who put together their Stanley Cup-winning team, he and one of the reporters would on the road always play rod hockey together. And they shipped a rod hockey game around the country so they could play rod hockey in hotel rooms at two in the morning. So when they discovered *NHL* on the Genesis they said "This is so much easier. We can fit this in a suitcase." So they bought a Genesis, and they played *NHL* for the next year and a half. So to me that was kind of the highlight, [it] was when a general manager in the league plays the game for entertainment value and eventually goes on and wins the Stanley Cup. It's like maybe I had something to do with that. Who knows? Anyway, so we built that really fast again. It's typical Jim Simmons. I explained to him the game in its most kind of rudimentary basis. He makes it play, and then what I do is essentially coach after that, which is "Okay, if you run the skater hard in the zone, the defense will back right into the goalie." Well, what do you do in real life? You tell the defensemen "Don't back into the goalie. Stand the guy up." Well, so if you stand the guy up at the blue line what happens is you're vulnerable to be going around, but also what happens is you take away his speed. So that's how you do it in real life. For the most part my relationship with Jim was to tell him how to coach his players, and then he would figure out how to write that algorithmically and we would do things, like we would change the plays to solve problems. So if the linebacker has had a hard time with the sightlines, we'd move the linebacker. We didn't need to be religious about the plays, and we weren't. So sometimes you fix the data, sometimes you fix the code. We did both. So he did a great job. We finished that game. We followed up with *Madden*. We went on and did a SNS version of *Madden* I think that same year. We did a second *NHL*. I think the next year is the first year we did *NCAA Football*. I think that's the third year. Then the year after that we did *Mutant League*.

Garcia: Oh, I remember...

Hilleman: At one point in time that football engine was being sold three times a year. That's quite a trick actually.

Garcia: That's security.

Hilleman: <*laughs*> They made a cartoon out of *Mutant League*.

Garcia: Oh Yes. I remember watching that relatively religiously.

Hilleman: Yes. Sam Nelson produced that product.

Garcia: How do you work with a property that you know is going to be annual?

Hilleman: You mean how do you do it now, or how did we do it then?

Garcia: How did you do it now and then? Let's start with then.

Hilleman: I think then the line is really what we described. So it depended on if we had competitive pressure or not. *Madden* for 15 of its first 20 years had real competitive pressure, and so the process of the feature set for the following year is a function of trying to predict what the strengths and weaknesses of your opponent are and trying to be prepared to refute them as well as to have your own unique selling proposition that you think is more closely aligned to that consumer's interest. And that means you're running that over an extended period of time, so you're evolving that taste. For us that was the game. We had the list, but that below-the-line list of items that we could do next year, it was important to sort them into things that you could communicate. The most important characteristic when I first got in the video game business of selling a product was the back package, generally the screenshots. The screenshots and the few words that were underneath it had a disproportionate effect on how products got sold. There were some advertising in magazines, but those didn't really reach for that many people. Most decisions were made by picking the package up, flipping it over and looking at the back or somebody telling you it's good. So I built *Ferrari* around six screenshots and around the text that would be underneath them. By the time we got to *Madden* it was at least as much about television as anything, and that meant that it was about "What is the message that I can deliver in 30 seconds or so that will make sense to a *SportsCenter* customer that will mobilize him to buy the product?" And that meant it usually had to be about one thing or one and a half things. Lite beer by Miller is an outlier in the world of advertising. "Less filling and tastes great." It's very hard usually to get two points across. They kind made a gag out of the fact they were getting two points across. That's the only way it worked. So generally it tends to be about one thing per year. We would generally look at that to-do list and try and sort it into the thing that would substantiate that one position that we thought was most useful that next year, and we generally have now about a three-year window of what we think those things are, and it maps things like new platform releases and major events in the NFL and Hall of Fame events, things like that that we try and understand where they're going to happen. So in any given year there's usually one thing that's special, that the league has made special or we've made special, and then there usually are the things that are evolutionary that our customers are telling us define the position that we want, which is the most real of the sports simulators.

Garcia: I hope we can talk about the life cycle of gamers.

Hilleman: Sure. You mean why do they get old, darn it?

Garcia: How does that affect your production of games? Do you always target the next...?

Hilleman: Yes, I'm talking to the same people. I don't really think things have changed. I don't mean that they're exactly the same individuals, but what I see are the same things. So in 1982, 1983 when I entered this business there was an extremely vibrant, very democratic gaming business. It's called “coin-op” [coin-operated]. Girls played it as much as guys did, and pretty much everybody played it. I mean, everybody dropped a quarter. You know, you didn't drop 60 bucks, but while you waited for a pizza or waited for a seat at Red Robin or whatever it was you'd play *OutRun* or whatever the video game was, and you didn't define yourself as a gamer because you did that. There also were people who bought computer games or bought video game consoles and spent a lot of time in front of them, or there were people who went to the arcade and spent really a lot of money. Those people existed before. They played pinball, poker, and lots of other games before. They've existed for a long time. That core is there. It's never gone away. They self-identify. If you ask them if they're a gamer, they say "I'm a gamer." They tend to platform-align or tend to be a Sony guy or an Xbox guy or a Nintendo guy or a PC guy. And they define themselves by that experience. That is their lifestyle. They align themselves with that. And then there's everybody else. If you look at the telemetry, if you look at how those people play there is not any really difference. The number of hours is extraordinarily similar. What's different is how they play and where it fits into their lives. This is somebody who will “event play.” They will put aside two to four hours to sit on a couch in front of a television and not move and not do anything else. They may have the Internet running, they may have a mobile phone running, they may be texting, but this is the focus. This person will play 20 hours of games a month 90 seconds at a time, and they will never understand how much they really play. It will just be, as I describe it, "On my phone this 30-foot putt in *Tiger Woods Golf* is the most important thing in the world until the airline lady says ‘Next.'" And that's the relationship that they have with games, which is it fits into the holes of their lives and provides some entertainment then. In the case of Facebook it maybe does some other things too, but those people, many of them own Genesis’s and own PlayStation 1s and, by the way, bought Wiis for their kids. It isn't that they don't like games. It's they don't like being a gamer. They don't want to see themselves as somebody who has lost control of their bodily functions and eats way too many potato chips. They don't want to project that image. So when they say "I'm not a gamer," they're saying "I'm not that guy. I'm not that stereotype." That doesn't mean that they don't play. So for me what I've seen is over the last 30 years every once in a while this crowd goes dark either because we failed to service them or because they lose interest or whatever the reasons are. This group is always there, and every year we figure out how to give them a deeper, more immersive experience that they want, and they figure out how to pay us more for it. Thank you. We love you to death. This represents really the majority of the people in the world, and these are the people that I continue to really try and get our focus to make sure we don't lose them. The way I described it is about the time of the Wii they all showed up, and we'd been trying to date that girl for 20 years, and suddenly she showed up at our front doorstep, and it took us a little while to catch on. I think that's what's going on. I think that you can't make that crowd feel bad about it. If they go down and spend too much money at the casino, they feel bad about it. If they go and spend too much money at Zynga, they feel bad about it. If that's true, you're not on a long-term path. They will figure out how to get rid of you. If you make them feel bad, they will make you go away no matter how addictive you are. And so on the other hand if it's something that they enjoy sharing with their friends, if they want to show you that they just finished that

Angry Birds level or that they did actually just acquire the Prius plug-in in *Sims Social*, whatever it is that they want to actually share, they're not ashamed of that. That isn't making them feel bad, and I think you're having a positive effect on them. So over here it is really so much more about maintaining their interest and focus in what you're doing and making them feel good about that. The economics will take care of itself if you accomplish that. But if you make them feel bad, they will go away, and they will go away fast, and that's really the danger over here, is that we don't chase them away again.

Garcia: What do you think has been the influence of MMOs [massively multiplayer online games] then on the gamer?

Hilleman: It depends on which one it is. So I like Frank Pearce a lot. I think he's great. Frank's the tech guy at *Blizzard*. They make an MMO that I don't—I'll put this a different way. About 1986 or so there was an incredibly successful computer game. I think its final total that it sold is something on the order of 65 million copies. I think the vast majority of those were free or sold for a dollar by the end, but there were a tremendous number of these discs made. It's called *Myst*. When's the last time you played a game like *Myst*?

Garcia: Ninety-one, '92.

Hilleman: Yes. The short answer was at the end of the day *Myst* wasn't a category. It was a product. It was a point in time where that particular product served a particular need. At that point in time it was the device you used to prove you had a CD-ROM machine, the same way that Microsoft Flight Simulator proved that you had a PC. And as a result, that application did well in that context. I don't think very many people actually played it, and the sequels did precipitously worse, which is generally the sign of games that either were not played or people didn't like when they played. Either one. I have come to believe *World of Warcraft* may be *Myst*. I don't mean that in a negative way, but it just means it's a product, not a category. On the other hand, if I were Frank, I would trade everything that I have away to own *MapleStory*, because *MapleStory* is an MMO for those guys, and it's for Asian those guys in particular. *MapleStory* has more users. I think it generates more dollars. It certainly has more day-to-day active MAUs [monthly active users] and probably in hours probably more active too. It is a fully fledged mobile and Web-based MMO. I just think it's the future of that form. Now, that's one future, and I think that's interesting, probably less interesting to EA. We're good at production values. I'm more interested in the big meta-game, which is how everything that I play fits into one outcome, and that makes a lot of sense if they're all soccer games or football games or baseball games, but that doesn't have to be the limitation. Why can't *Battlefield* help my *John Madden Football* and vice-versa? Achievements are achievements. My gaming life may be the meta-game. So I think that's something to consider in the future, is what is an MMO and how do you compose an MMO? Is it one big master-planned aircraft carrier, as Gordon Walt used to describe them? Or are you better off lashing together a bunch of canoes? I would make the case that maybe you're better off lashing the canoes together. That's been the *MapleStory* strategy.

Garcia: Taking *Tiger Woods Golf* as an example, when you are dealing with a personality as the face of a game—I know this goes all the way back to Chuck Yeager...

Hilleman: Chuck Yeager is probably an equally good example.

Garcia: How does the interaction between them and the production of the game happen? Is that the producer's gig?

Hilleman: Well, so it's a three-prong process. I think in Tiger's case marketing played a higher role than the others. I think in Madden's case it was a bit of our group and a bit of others. I think in Yeager's group it was me—ended up being me and Paul Grace. In each of those cases it's really a three-way dance. It's a dance between what the technology can do, the marketing image that you can project about the product that aligns with what that celebrity means in the marketplace and the participation you can get out of the celebrity. We always really, really, really, really try to get the celebrities to contribute in a way that makes it feel like theirs. Generally those contracts pay them some money, and they give us some time as part of that compensation. That time in most people's contracts, if it's done with craft or somebody like that, 100 percent is spent on marketing. They will put them in front of—if you get two days, he'll be in front of a camera for one day and seven hours and 30 minutes. The whole time will be burned up making television commercials. We generally didn't do that. We would use half to three-quarters of that time to consult with the celebrity about the product, which usually surprised them. They would actually be surprised. "You mean you're not shooting?" "No. Show up how you like, and we're going to play games today, and we're going to talk about what you care about, what you think matters." And so in Chuck's case it was "These controls blow. How do you make these better?" and there were some good stories about—he piled us into our car, followed us up to his house so he could show us what a real F-4 joystick looks like and that "This is what people want." We knew that's what he wanted. It's just Apple wouldn't make that at the time for the Apple II, so that was the challenge in front of us, was living with that. But at the end of the day Chuck was pretty good at telling us what mattered, so here's a good example. We spent a lot of time, Paul Grace and I did, talking about vector thrust aircraft, and Chuck in about a sentence made us feel like idiots. He says "It's like these aircraft pull 11 Gs. It adds a G. What's the difference?" It's like "Oh. Never mind." And of course it never went everywhere in jet design, and the reason why was simple physics. By the way, Chuck has a high school degree too, so he's okay with me. So that's an example of us trying to do that. I think Tiger was an equally good example. I think the first meeting with them—there had been a tremendous amount of negotiation. It's about time. Tiger was I think 20 at the time, so it had been about how long a day. We had him come in and do swings so we could motion-capture those swings. We had him talk about his club lengths out of different lines. We went through all that kind of information, and Fluff was his caddy at the time. He came along and had a lot of information for us when Tiger didn't even know it. Tiger knows it, but he didn't want to say. We talked about other players and how to model their strengths and weaknesses so we could model his, and then we talked about the kind of power-ups that he thought were cool. And he had a lot of ideas that ended up in *Cyber Tiger*, the second product that we did with him. And then the most important thing we did was we were done an hour and 10 minutes early, and we sent him home...

Garcia: Wow.

Hilleman: ...which to a 20-year-old kid who hasn't had five minutes of unscheduled time in the last year and a half is like gold. And his answer was "I'm going to Taco Bell." So he took the limo to Taco Bell...

Garcia: Wow.

Hilleman: ...which was great and I think had a lot to do with our good relationship with him after that, which was the very first time in spite of negotiating hard on his time we didn't abuse it. We didn't ask him to do foolish things, and he didn't spend his entire time autographing shit we gave away, things that other people do. So that's part of it, is you want to make them come back. In the case of John, it's when the players started to pay attention to the game that John started to really care. He came back being unhappy with the rating we'd given a certain New York Jets receiver, mostly because the receiver had given him shit.

Garcia: Wow. Oh, excellent. We're done with the first page. There's only two pages.

Hilleman: Good. I have to go in 40 minutes.

Garcia: How would you describe your job now?

Hilleman: Yes, so I'm the chief creative director, which is a bit of a BS title, but what I think I do is that I'm ostensibly responsible for the creative health of the company. I do not run our labels. I do not run any of our product franchises today. That is not my role. There are great people who are doing that stuff, and I do not want those jobs, thank you very much. What I try and do is invest in the relationship that the designers and producers in their groups have with the rest of the company, meaning making sure that they understand people in other labels who are doing great things. I try and make sure that we are developing the talent that we need for the future, both on our own bench and from a hiring standpoint. And I try and make sure that we're ready to play on the new platforms when they emerge so that when something new comes out our designers and producers think that we're already operating on second-order learning, meaning we've already done some stuff and know some mistakes not to make. So that's the big picture thing. We do it essentially by pursuing three simultaneous strategies. One is we're in the platform business. We manage our relationships with the people who make platforms. We try and have influence on what those platforms are. In some cases we help make them. In other cases we twist some arms. In other cases we supply products that really amplify or focus the platform builders' attention on things that we think are important. We've had a great relationship with Google like that recently where the Chrome browser's performance and interface characteristics, especially around sound, are tremendously improved over the last two and a half years, and I hope we've been one of the reasons. I believe we have been. The second thing that we do is we work a lot on products. EA makes a lot of products, and our job

is for those products to be great. I'm an advocate for the quality of all of the products that we make, and I am an advocate for in particular the design work that we make on those products to make sure they're great. Sometimes we help put out some fires. Other times we help figure out what the next steps are on places that need to go in new directions. We like doing all of those things. Fewer fires are better. The last thing we work on is people. Everybody in my group teaches. As I said before, I don't have a college degree, but I've taught classes at CMU [Carnegie Mellon University], at MIT [Massachusetts Institute of Technology], at Stanford, Caltech [California Institute of Technology], USC [University of Southern California], SMU [Southern Methodist University], Michigan State. I'm forgetting a bunch. So we teach college classes all the time. In addition, we sponsor interns and co-ops usually to the point of a third of the population at my group at any given point in time from major universities working on game projects that we help sponsor and help them get to their outcomes. And the last thing we do is we're a place where new hires come to join EA and to have their first experiences in the game business and to make sure that they don't get killed.

Garcia: Have you tried to duplicate your personal experience with EA with the new folks who come through?

Hilleman: That really doesn't work; at least I don't think so. I can't make them listen to INXS. It just won't work. The reason to get a kid, the reason to get somebody younger than you is to live in today, not yesterday. And so I try and teach them to make good decisions. I try and teach them why. If they want to understand why something is the way it is at EA, I can usually tell them exactly why. It isn't an accident. I can usually tell them the story that produced that change in the company. I also try and make sure they play the long game, which I think is the one thing you get out of being in place for almost 30 years like I have been. Hopefully in the long term what I've done has given them the kind of decision-making processes that get to the right outcomes. I think judgment is the number-one thing a producer sells, and judgment's the product of understanding what you have and then understanding what you can do about it. And we try and work on both those things.

Garcia: You mentioned *MapleStory* as the direction that things are going.

Hilleman: Certainly in Asia.

Garcia: What do you see as the influence of that in the US?

Hilleman: So I think sometimes markets because of constraints can produce rapid change, and the example that I'll tell is about Alice Cooper and the Tubes. You didn't see that one coming, did you?

Garcia: No.

Hilleman: So Alice Cooper and the Tubes when they were in their formative years as bands were both in Phoenix, Arizona. And I lived in Las Vegas, but Phoenix is kind of Las Vegas. It's like living on an island without the beach. There is no water, but otherwise you are hell and away from everything else. So if you play in a rock band in Phoenix, you can drive to Texas, which is six hours away. You can drive to Vegas, which is five hours away, or Los Angeles, which is two days away really, or you can play a lot in Phoenix. So at the time there were essentially two rock clubs in Phoenix. The Tubes would play one, and Alice Cooper would play the other. This is in the late '60s and very early '70s. Most of the rock bands at this time wear jeans and T-shirts and stand onstage with their Marshall amps behind them and play their music. The Tubes and Alice Cooper are having an accelerating battle over who can put on the most elaborate production show, and that turned into the Alice Cooper show you see today, which is just this side of Broadway, and the Tubes' classic shows are essentially vaudeville revues. Why is that? Because they competed against each other in a market that only had two outlets. In China today there is no pay at the door business model. There is no console model. Everything you're going to see is going to be on the Web or something with a Web-like client, and that means that the free-to-play and premium models that come naturally out of that platform are going to get accelerated by the fact that there is no alternative and that there's roughly four times as many people playing it as any other thing in the world. That turns into energy that will turn into innovation in that space. I expect that you will see the free-to-play business model and the design work that goes with it innovate more rapidly in China in the next three years than it has in all of history to today, and it's one of the reasons why we think we need to pay attention to China for creative reasons, oddly enough, because business-model design and game design are the same thing.

Garcia: Wow. What do you see the console trajectory being?

Hilleman: Well, before there was a Macintosh computer there was a McIntosh amplifier. Not the same company; not spelled the same. The McIntoshes don't have the A. If you ever get a chance in your life to see a McIntosh amplifier, they are beautiful. They have blue lights. They have tubes. You can see the tubes. They have really big knobs, and they sound fabulous. When the Grateful Dead built its first stage show with money they used nothing but McIntosh stereo amplifiers at 100 watts a piece to build their PA system. [They were] built by a guy named Ron Wickersham, who lives in Santa Rosa now. But, anyway, I think that there is always a place in the market for the very best and that there are people who want and identify themselves with the most immersive experience possible. Consoles are dedicated to that as an outcome. Consoles are increasingly about the multiplayer action game, and I think that's great. They do that spectacularly well. That group is going to exist. The sports car market in America is an interesting market. Everybody would like to be in the sports car market. Mazda, who has been as successful with the Miata as anybody has ever been with a sports car in America, in a good year sells 20,000 units. By comparison, the Kia Soul with hamsters sells 20,000 a month. There is a relationship between these two that I'm describing, which is there are people who want this experience and will pay for it—in convenience in a sports car or in dollars and cents in a Ferrari—who will pay for the difference, and we're happy to build products for them, because they drive us to do the very best work that we can do. And then there are people who will buy cars from hamsters, like my kids. If you ask my kids what car they want, they don't want a Mercedes Benz. They want a Kia Soul, because they want a hamster car. Good for Kia.

They're actually decent cars, too. I don't think it's bad to make those, too. You know, making games for people who want to play them 90 seconds at a time and don't want to identify themselves as a gamer but still want to play 20 hours a month? What's to complain about?

Garcia: How do you see the role of the producer going forward from here?

Hilleman: Wow. It's a really good question. As I described earlier, I think the role of designer and business model are merging into one thing, and that can go into one of two hands. The person who's been responsible for the business model in the past was the producer. The person who's been responsible for the game design in the past is the designer. If they become one thing, who's in charge? I think it depends on the kind of producer you are. I worked with a guy named Don Traeger. Don came out of the coin-op business. Don didn't know how many bits there were in a byte. I personally couldn't sleep if I was Don, because I would feel so utterly out of control in my life. But Don was very focused on the things that he thought were important, which was "How do I communicate this game to somebody, and is it any good? And how do I make it good?" And so that was a proper focus for him. I think that our producers of the future are going to need to create the environment and assemble the teams that are capable of playing in this space. And good producers maybe don't do anything at all. So, one of Electronic Arts' first five vice presidents was a guy named Eric Walter. Eric grew up in England. Eric was an REF bomber pilot. No shit. He had the whole thing, the mustache. I mean, dude, it was perfect. And he would come in every day at 9:30, and he would pick up his *Wall Street Journal* and his *New York Times* in the front, which was sitting at the reception. He would walk into his office, and he would put his feet up on his desk, and he would read the newspaper, and he would read the *Wall Street Journal*— and it would go on till 10:30, something like that, every day. And then he would have a couple meetings. He'd go to lunch. He'd come back and maybe have a couple meetings, and then he'd go home. Everybody else at EA is dying. It's 20 hours of weekdays. Eric Walters is the head of operations, so he runs the warehouse and the folks who manufacture our stuff. He also runs purchasing and a few other things. The five people that he hired did those jobs at EA for 15 of its first 15 years.

Garcia: Wow.

Hilleman: What I learned from that is if you do that one part really well, you can come in every day and put your feet up on your desk, because everything else is easy. <*laughs*> I think that if producers do their jobs very well, if they assemble their teams with the right talented people, give them the right resources, the right opportunities, give them the right air cover, make sure they're successful, that might be all you have to do. The more you have to do of the other stuff, you're probably in a failure state. So I ended up the designer on *John Madden Football* because we didn't have another one. It wasn't because that was a job I wanted. I didn't raise my hand and say I wanted it. I looked around one day, and there was nobody else. And so eventually I got Scott Orr involved so we had more of that help, but in most of the cases, *Ferrari* being maybe the exception, when I was the designer it was a failure state. And I think that's often

true. I think that the more a producer tries to do and be a producer, the more he's telling you "I don't know how to get that other stuff done."

Garcia: Wow. Excellent. All right. That's everything I got.

Hilleman: Great. Thanks.

END OF INTERVIEW

